# Plant Disease in Kansas

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Special points of interest:

- *Sudden death syndrome in soybeans*
- *Pine wilt reported in white pine*
- *Landscape diseases*

## Field Crop update

Observations from the field indicate that disease pressure is building in both corn and soybean.

Gray leaf spot of corn seems to be common to many fields in the eastern half of Kansas. Observations were made in south central, central, southeast, and east central Kansas. Severities were from 1 to 10 per cent of the leaf area and had reached the ear leaf. The south central area in Edwards and Kiowa counties appeared to have the greatest amount of pressure. Other diseases reported were common maize smut and southern rust.

In soybeans, the important issue appeared to be sudden death syndrome. Observations of this disease were near Manhattan and Lawrence. Small areas were reported but the beans were in the early pod fill stage and more development of disease was expected. Other diseases included brown spot, bean pod mottle virus, *Phytophthora* root rot and bacterial blight. Asian soybean rust was not observed in surveyed fields in the eastern third of the state.

**Figure1**. Early symptoms of Sudden Death Syndrome.

## Pine wilt update

Recent reports have new findings in the Beloit, St. John and Pratt communities. These towns are on the leading edge of the infestation moving from the eastern half of Kansas into western Kansas. Pine wilt is established in areas east of these communities.

In eastern Kansas, a dead white pine outside of Louisburg was sampled and found to have pine wilt nematode. White pine reports are few and occur in areas where pine wilt is well established. For an updated map of 2009 pine wilt reports particularly in central Kansas, copy and paste the web address below in your browser. The web site will be updated as the year goes along. http://maps.google.com/maps/ms?ie=UTF8&hl=en&msa=0&msid=109934408931148211555.0004 6f231d0be4b91e62b&z=7

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Plant Protection and Weed Control Program

Plant Protection and Weed Control staff work to ensure the health of the state's native and cultivated plants by excluding or controlling destructive pests, diseases and weeds. Staff examine and analyze pest conditions in crop fields, rangelands, greenhouses and nurseries. Action taken to control potential infestations of new pests, whether they are insects, plants diseases or weeds, is beneficial to the economy and the environment.

**Our Mission is to:**

- Exclude or control harmful insects, plant diseases, and weeds;
- Ensure Kansas plants and plant products entering commerce are free from quarantine pests;
- Provide customers with inspection and certification services.

The Plant Disease Survey in Kansas has been conducted since 1976. The survey addresses disease situations in field crops, native ecosystems, and horticultural trade. The Kansas Department of Agriculture works cooperatively with Kansas State University and Extension programs, United States Department of Agriculture, and various commodity groups.

## Diseases in the Landscape

Several diseases are now active in the landscape or nursery. Cedar hawthorn rust is present in many communities of eastern Kansas on pear. It appears as a dark brown spot on the leaf. On the underside, the rust has raised leaf areas that are pustules caused by the fungus. Dutch elm disease is another disease that has been observed this summer. Dead branches and entire American elm trees are affected. Branches first turn yellow and then quickly die and the leaves turn brown.

Tip blights can be observed on burr oak and Austrian pine. The oak disease is caused by *Botryosphaeria* fungus (see top image). With an aid of a hand lens, one can sometimes see the raised black fruiting structures in the dead tissue. Often the entire tree is affected. In Austrian pines and sometimes Scotch, *Diplodea* tip blight can be seen. Tips are often blinded/dead and resinous.

Daylily rust is a disease that is just developing. It is usually associated with imported plant material from southern US nurseries. The frequent precipitation in eastern Kansas has been ideal for this disease. The image to the right is the bright yellow pustules on the leaf.

**Fig. 2** Bot canker of burr oak.

**Fig. 3** Day lily rust.